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Val Asp Thr Ser Lys Asp Arg Lys Pro Ile Ser Pro Tyr Ile Tyr Gly
      50                      55                      60

Thr Asn Gln Glu Leu Ala Gly Asp Glu Asn Leu Thr Ala Arg Arg Leu
      65                      70                      75                      80

Gly Gly Asn Arg Met Thr Gly Tyr Asn Trp Glu Asn Asn Met Ser Asn
          85                      90                      95

Ala Gly Ser Asp Trp Met Gln Ser Ser Asp Ser Tyr Leu Cys Asp Asn
      100                      105                      110

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Ala Gly Leu Thr Lys Ala Glu Cys Glu Lys Pro Gly Ala Val Ala Thr
 115 120 125
 Ser Phe His Asp Gln Ser Leu Lys Gln Gly Thr Tyr Ser Leu Val Thr
 130 135 140
 Leu Pro Met Ala Gly Tyr Val Ala Lys Asp Gly Asn Gly Ser Val Gln
 145 150 155 160
 Glu Ser Glu Lys Ala Pro Ser Ala Arg Trp Asn Glu Val Val Asn Ala
 165 170 175
 Lys Asn Ala Pro Phe Gln Leu Gln Pro Asp Leu Lys Asp Asn Gln Val
 180 185 190
 Tyr Ala Asp Glu Phe Val Asn Phe Leu Val Lys Lys Tyr Gly Val Ala
 195 200 205
 Ser Thr Lys Thr Gly Val Lys Gly Tyr Ser Leu Asp Asn Glu Pro Ala
 210 215 220
 Leu Trp Ser His Thr His Pro Arg Ile His Gly Glu Lys Val Gly Ala
 225 230 235 240
 Lys Glu Leu Val Asp Arg Ser Val Ser Leu Ser Lys Ala Ala Lys Ala
 245 250 255
 Val Asp Ala Gly Ala Glu Ile Phe Gly Pro Val Leu Tyr Gly Phe Gly
 260 265 270
 Ala Tyr Lys Asp Leu Gln Thr Ala Pro Asp Trp Asn Ser Val Lys Gly
 275 280 285
 Asn Tyr Ser Trp Phe Val Asp Tyr Tyr Leu Asp Gln Met Arg Leu Ser
 290 295 300
 Ser Gln Ala Glu Gly Lys Arg Leu Leu Asp Val Phe Asp Val His Trp
 305 310 315 320
 Tyr Pro Glu Ala Met Gly Gly Gly Ile Arg Ile Thr Asn Glu Val Gly
 325 330 335
 Asn Asp Glu Thr Lys Lys Ala Arg Met Gln Ala Pro Arg Thr Leu Trp
 340 345 350
 Asp Pro Thr Tyr Lys Glu Asp Ser Trp Ile Ala Gln Trp Asn Ser Glu
 355 360 365
 Phe Leu Pro Leu Leu Pro Arg Leu Lys Gln Ser Val Asp Lys Tyr Tyr
 370 375 380
 Pro Gly Thr Lys Leu Ala Leu Thr Glu Tyr Ser Tyr Gly Gly Glu Asn
 385 390 395 400
 Asp Ile Ser Gly Gly Ile Ala Met Ala Asp Val Leu Gly Ile Leu Gly
 405 410 415

Lys Asn Asp Val Tyr Met Ala Asn Tyr Trp Lys Leu Lys Asp Gly Ala
 420 425 430
 Asn Asn Tyr Val Ser Ala Ala Tyr Lys Leu Tyr Arg Asn Tyr Asp Gly
 435 440 445
 Lys Ser Ser Thr Phe Gly Asp Ile Ser Val His Ala Gln Thr Ser Asp
 450 455 460
 Ile Val Asn Ser Ser Val His Ala Ser Val Thr Asp Ala Ser Tyr Lys
 465 470 475 480
 Glu Leu His Leu Val Val Met Asn Lys Ser Met Asp Ser Ala Phe Asp
 485 490 495
 Ala Gln Phe Asp Leu Ser Gly Glu Thr Thr Tyr Gly Ser Gly Lys Val
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 Trp Gly Phe Asp Lys Asn Ser Ser Gln Ile Lys Glu Ala Ala Pro Ile
 515 520 525
 Thr Gln Ile Ser Gly Asn Arg Phe Thr Tyr Thr Val Pro Pro Leu Thr
 530 535 540
 Ala Tyr His Ile Val Leu Thr Ala Gly Asn Asp Thr Pro Val Glu Asn
 545 550 555 560
 Pro Glu Ser Phe Ala Leu Arg Ala Glu Ala Gly Asp Gly Lys Ser Ile
 565 570 575
 Tyr Leu Asp Ala Ser Ser Gly Val Val Gly Tyr Ser Val Gln Arg Ala
 580 585 590
 Thr Tyr Glu Asn Gly Pro Phe Ala Ala Val Ala Ser Asn Leu Val Glu
 595 600 605
 Thr Ser Tyr Thr Asp Thr Asn Val Thr Asn Gly Thr Ser Tyr Tyr Tyr
 610 615 620
 Lys Ile Thr Ala Lys Thr Lys Thr Gly Thr Ser Ala Ser Asn Val Leu
 625 630 635 640
 Lys Ala Val Pro Arg Ala Pro Val Asp Gly Pro Asp Arg Tyr Glu Ala
 645 650 655
 Glu Asp Gly Thr Leu Lys Gly Thr Val Val Glu Ser Ser Gly Thr Gly
 660 665 670
 Phe Ser Gly Thr Gly Tyr Val Thr Asn Phe His Asn Ala Gly Asp Ser
 675 680 685
 Leu Thr Met Thr Ile Gln Ala Pro Thr Ala Gly Leu Tyr Asn Leu Thr
 690 695 700
 Ile Gly Tyr Arg Ser Pro His Asp Asp Lys Arg Thr Asn Phe Ser Leu
 705 710 715 720

Asn	Gly	Lys	Ala	Ser	Gly	Glu	Leu	Val	Leu	Trp	Lys	Thr	Ala	Asp	Phe	
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Lys	Glu	Thr	Ser	Gly	Gly	Lys	Val	Leu	Leu	Asn	Ala	Gly	Ala	Asn	Thr	
			740					745					750			
Ile	Gly	Phe	Glu	Thr	Gly	Trp	Gly	Trp	Tyr	Asp	Ile	Asp	Tyr	Val	Lys	
		755					760					765				
Leu	Glu	Pro	Ala	Ala	Asp	Arg	Pro	Pro	His	Ala	Val	Thr	Lys	Thr	Leu	
	770					775					780					
Ile	Asn	Pro	Asn	Ala	Thr	Val	Glu	Ala	Lys	Ala	Leu	Met	Asn	Tyr	Leu	
785					790					795					800	
Val	Asp	Gln	Tyr	Gly	Lys	Asn	Met	Leu	Ser	Gly	Gln	Glu	Asp	Met	Pro	
				805					810					815		
Glu	Ile	Asp	Trp	Leu	Gln	Ala	Asn	Val	Gly	Lys	Lys	Pro	Ala	Ile	Ala	
			820					825					830			
Ala	Leu	Asp	Leu	Ile	Asp	Tyr	Ser	Pro	Ser	Arg	Ala	Glu	His	Gly	Leu	
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Ser	Ser	Thr	Glu	Thr	Glu	Lys	Ala	Ile	Glu	Trp	Asp	Lys	Gln	Gly	Gly	
		850				855					860					
Ile	Val	Thr	Phe	Ala	Trp	His	Trp	Asn	Ala	Pro	Lys	Gly	Leu	Ile	Asp	
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Thr	Gln	Gly	Lys	Glu	Trp	Trp	Arg	Gly	Phe	Tyr	Ala	Asp	Ser	Thr	Thr	
				885					890					895		
Phe	Asp	Ile	Glu	Tyr	Ala	Met	Asn	His	Pro	Glu	Ser	Glu	Asp	Tyr	Lys	
			900					905					910			
Leu	Leu	Ile	Arg	Asp	Ile	Asp	Val	Ile	Ala	Gly	Gln	Leu	Lys	Lys	Leu	
		915					920					925				
Gln	Asp	Ala	Lys	Val	Pro	Val	Leu	Phe	Arg	Pro	Leu	His	Glu	Ala	Glu	
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Gly	Lys	Trp	Phe	Trp	Trp	Gly	Ala	Lys	Gly	Pro	Glu	Pro	Val	Lys	Lys	
945					950					955					960	
Leu	Tyr	Ile	Leu	Met	His	Asp	Arg	Leu	Thr	Asn	Val	His	Lys	Leu	Asn	
			965						970					975		
Asn	Leu	Ile	Trp	Val	Trp	Asn	Ser	Val	Ala	Pro	Asp	Trp	Tyr	Pro	Gly	
			980					985					990			
Asp	Glu	Tyr	Val	Asp	Ile	Leu	Ser	Phe	Asp	Ser	Tyr	Pro	Gln	Ala	Gly	
		995					1000					1005				
Asp	Tyr	Ser	Pro	Gln	Ile	Ala	Lys	Tyr	Glu	Asp	Leu	Val	Thr	Leu	Gly	
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Lys Asp Lys Lys Leu Val Cys His Glu Arg Lys Arg Thr Tyr Pro Gly
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 Pro Gly Ser Asp Glu Gly Val Ser Ser Pro Leu Glu Leu Val Arg Tyr
 1045 1050 1055
 Met Val Trp Gly Phe Leu Glu Arg Arg Gln Thr Lys Gln Ser Leu Glu
 1060 1065 1070
 His Leu Lys Lys Val Tyr Asn His Pro Asn Val Ile Thr Leu Glu Lys
 1075 1080 1085
 Leu Pro Thr Asn Leu Lys Thr Tyr Gly Ile Thr Glu Gln Pro Ser Val
 1090 1095 1100
 Pro Gly Ser Phe Thr Leu Asn Ala Ala Gly Glu Thr Ala Lys Val Lys
 1105 1110 1115 1120
 Leu Ser Trp Thr Ala Ser Ala Asn Ala Ala Ser Tyr Glu Val Lys Arg
 1125 1130 1135
 Ser Thr Val Glu Asn Gly Ala Phe Ala Thr Val Ala Ser Asp Val Tyr
 1140 1145 1150
 Gly Ser Ser Tyr Thr Asp Thr Ala Val Thr Ala Asp Thr Thr Tyr Tyr
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 Tyr Gln Val Val Ala Lys Asn Asp Ala Gly Gln Thr Val Ser Asn Thr
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 Ala Ser Ala Ala Pro Lys Ala Asp Thr Gln Gln Pro Thr Thr Gly Leu
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 Val Leu Gln Tyr Arg Thr Ala Asp Thr Asn Val Asn Asp Asn His Leu
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 Asn Pro His Phe Gln Ile Leu Asn Lys Gly Thr Ile Ser Val Pro Ile
 1220 1225 1230
 Asn Glu Leu Lys Ile Arg Tyr Tyr Thr Thr Ile Asp Gly Asp Arg Glu
 1235 1240 1245
 Gln Thr Phe Asn Cys Asp Tyr Ala Val Leu Ser Cys Ser Lys Leu Asn
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 Gly Lys Leu Val Lys Met Asp Lys Ala Ala Thr Gly Ala Asp Tyr Tyr
 1265 1270 1275 1280
 Leu Glu Val Ser Phe Asn Ser Asp Ala Gly Val Leu Ala Ser Gly Gly
 1285 1290 1295
 Ser Thr Gly Gly Ile Gln Thr Arg Ile His Lys Ala Asp Trp Ser Asn
 1300 1305 1310
 Tyr Asn Glu Ser Asp Asp Tyr Ser Tyr Lys Gly Thr Gln Thr Ser Phe
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Asp Asp His Thr Lys Ala Thr Leu Tyr His Asn Gly Val Leu Val Trp
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Gly Thr Glu Thr Ala Asn
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Ala	Pro	Thr	Val	Val	His	Gly	Gln	Thr	Ala	Lys	Thr	Val	Thr	Ile	Lys	35	40	45	
Val	Asp	Thr	Ser	Lys	Asp	Arg	Lys	Pro	Ile	Ser	Pro	Tyr	Ile	Tyr	Gly	50	55	60	
Thr	Asn	Gln	Asp	Leu	Ala	Gly	Asp	Glu	Asn	Leu	Ala	Ala	Arg	Arg	Leu	65	70	75	80
Gly	Gly	Asn	Arg	Met	Thr	Gly	Tyr	Asn	Trp	Glu	Asn	Asn	Met	Ser	Asn	85	90	95	
Ala	Gly	Ser	Asp	Trp	Gln	Gln	Ser	Ser	Asp	Asn	Phe	Leu	Cys	Asn	Asn	100	105	110	
Gly	Gly	Leu	Thr	Lys	Ala	Glu	Cys	Glu	Lys	Pro	Gly	Ala	Val	Thr	Thr	115	120	125	
Ser	Phe	His	Asp	Gln	Ser	Leu	Lys	Leu	Gly	Ala	Tyr	Ser	Leu	Val	Thr	130	135	140	
Leu	Pro	Met	Ala	Gly	Tyr	Val	Ala	Lys	Asp	Gly	Asn	Gly	Ser	Val	Gln	145	150	155	160
Glu	Ser	Glu	Gln	Ala	Pro	Ser	Ala	Arg	Trp	Asn	Gln	Val	Val	Asn	Ala	165	170	175	
Lys	Asn	Ala	Pro	Phe	Gln	Leu	Gln	Pro	Asp	Leu	Asn	Asp	Asn	Gln	Val	180	185	190	
Tyr	Ala	Asp	Glu	Phe	Val	Asn	Phe	Leu	Val	Lys	Lys	Tyr	Gly	Ala	Ala	195	200	205	
Ser	Thr	Lys	Ala	Gly	Val	Lys	Gly	Tyr	Ala	Leu	Asp	Asn	Glu	Pro	Ala	210	215	220	
Leu	Trp	Ser	His	Thr	His	Pro	Arg	Ile	His	Gly	Glu	Lys	Val	Xaa	Xaa	225	230	235	240
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	245	250	255	
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	260	265	270	
Xaa	Xaa	Phe	Lys	Leu	His	Xaa	Ile	Gly	Thr	Ser	Val	Lys	Gly	Asn	Tyr	275	280	285	
Ser	Trp	Phe	Val	Asp	Tyr	Tyr	Leu	Asp	Gln	Met	Arg	Leu	Asn	Ser	Gln	290	295	300	

Ala Glu Gly Lys Arg Leu Leu Asp Val Phe Asp Val His Trp Tyr Pro
 305 310 315 320
 Glu Ala Met Gly Gly Gly Ile Arg Ile Thr Asn Glu Val Gly Asn Asp
 325 330 335
 Glu Thr Lys Lys Ala Arg Met Gln Ala Pro Arg Thr Leu Trp Asp Pro
 340 345 350
 Thr Tyr Lys Glu Asp Ser Trp Ile Ala Gln Trp Asn Ser Ala Phe Leu
 355 360 365
 Pro Leu Leu Pro Arg Leu Lys Gln Ser Val Asp Lys Tyr Tyr Pro Gly
 370 375 380
 Thr Lys Leu Ala Leu Thr Glu Tyr Ser Tyr Gly Gly Glu Asn Asp Ile
 385 390 395 400
 Ser Gly Gly Ile Ala Met Thr Asp Val Leu Gly Ile Leu Gly Lys Asn
 405 410 415
 Asp Val Tyr Met Ala Asn Tyr Trp Lys Leu Lys Asp Gly Ala Asn Asn
 420 425 430
 Tyr Val Ser Ala Ala Tyr Lys Leu Tyr Arg Asn Tyr Asp Gly Lys Asn
 435 440 445
 Ala Thr Phe Gly Asp Ile Ser Val Asn Ala Gln Thr Ser Asp Ile Val
 450 455 460
 Asn Ser Ser Val His Ala Ser Val Thr Asp Ala Ser Tyr Lys Glu Leu
 465 470 475 480
 His Leu Ile Val Met Asn Lys Ser Met Asp Ser Ala Phe Asp Ala Gln
 485 490 495
 Phe Asp Leu Ser Gly Glu Thr Thr Tyr Ser Ser Gly Lys Ile Trp Gly
 500 505 510
 Phe Asp Lys Asn Ser Ser Gln Ile Lys Ala Val Ala Pro Ile Thr Gln
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 Ile Ser Gly Asn Arg Phe Thr Tyr Thr Val Pro Pro Leu Thr Ala Tyr
 530 535 540
 His Ile Val Leu Thr Ala Asp Asn Asp Thr Pro Val Pro Pro Val Glu
 545 550 555 560
 Asp Pro Glu Ser Phe Thr Leu Arg Ala Glu Ala Gly Asp Gly Lys Val
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 Asp Leu Ser Trp Asp Ala Ser Ser Gly Val Val Gly Tyr Ser Val Gln
 580 585 590
 Arg Ala Thr Tyr Glu Asn Gly Pro Phe Ala Ala Val Ala Ser Asn Leu
 595 600 605

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